Enabling Binding Update via access authorization

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November 16, 2011

The problem

Mobile devices often have to carry out two separate authentications before receiving packets at from home network

- Access authorization at local access network
- Binding Update to home network

This typically makes smooth handovers impossible.

A solution

- Enable access authorization to be relayed by the Home Agent which can then perform the Binding Update
- For access authorizations using EAP, this can be done very simply by defining a new format for authentication data that is the same as the required EAP authentication data

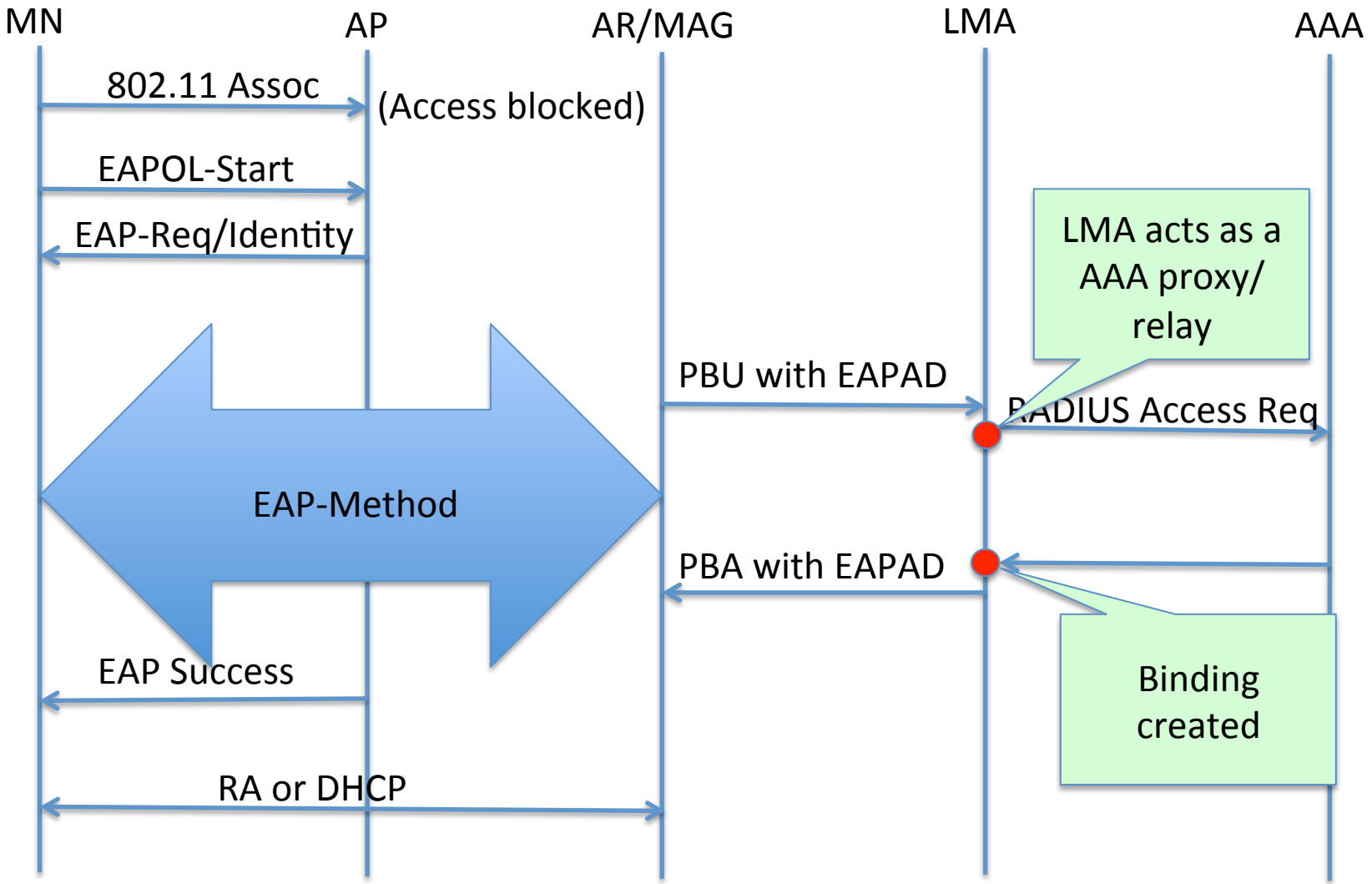
EAP Authentication Data [EAPAD]

- The EAP Authentication Data [EAPAD] subtype has exactly the format defined in RFC 3748 for an EAP message.
- This enables the LMA to unwrap the EAP message for delivery to AAA, acting as a simple AAA relay
- LMA uses the EAP reply status to determine whether to apply the Binding Update

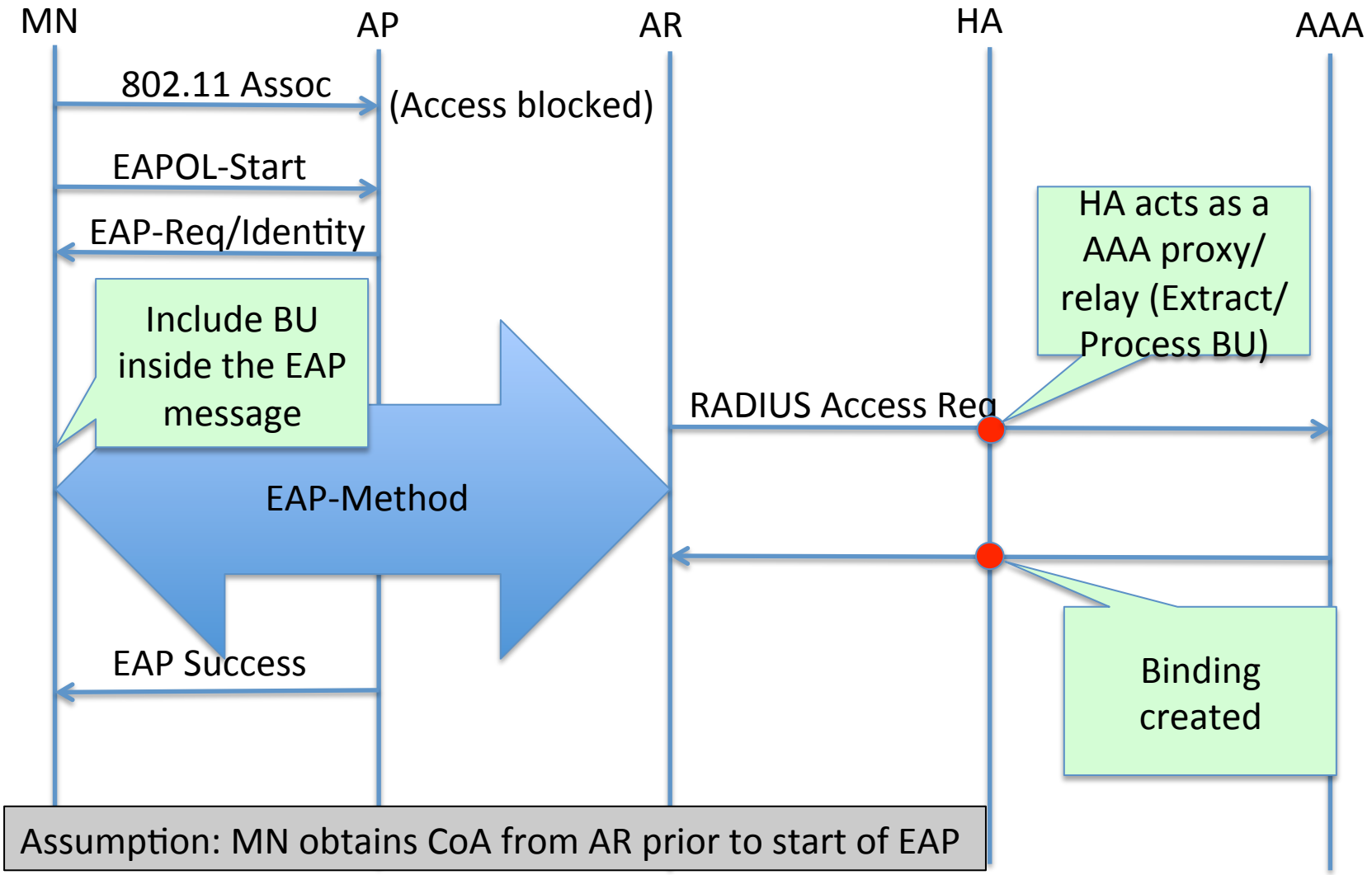
Binding Acknowledgement Authentication Data

- LMA needs to complete the authentication sequence by returning PBAck to the MAG.
- The PBAck Authentication Data option uses, similarly to the PBU previously described, data as defined by RFC 3748
- When MAG receives the data, then it can complete the EAP sequence, say according to 802.1x

Combined Auth/Reg in PMIP6



Combined Auth/Reg in MIP6



Role of NAI

- The MN should naturally be identified by its NAI, and MN-NAI extension applied to PBU / PBAck. The NAI should identify which home agent / LMA is appropriate for the home address of the mobile node.
- If there are thousands of home agent for the same AAA, then a local AAA relay can be configured with this information instead of configuring each MAG separately.